Page 1 of 4 ATTY. DOCKET NO. SERIAL NO. Form PTO-1449 **U.S. Department of Commerce** Not Yet Assigned N-7980/P-1022-1 (Rev. 8-83) Patent and Trademark Office APPLICANT R. A. Greinke INFORMATION DISCLOSURE CITATION FILING DATE GROUP Not Yet Assigned (Use several sheets if necessary) **U.S. PATENT DOCUMENTS** FILING DATE IF EXAMINER INITIAL DATE NAME CLASS SUBCLASS APPROPRIATE DOCUMENT NUMBER 10/1/68 3 1 Shane et al 161 125 4 0 4 0 6 5 5 7 9/21/82 Watanabe et al 204 101 4 3 0 6 423 448 9 5 7 3 1/23/90 Greinke et al 4 8 1 9 5 1 8 9/22/92 Mercuri et al 423 449 5 1 4 7 3 5 5 12/22/92 Von Bonin et al 521 103 5 1 1 5 3 7 4 5 0 12/27/94 Greinke et al 428 402 6 205 478 7 1 7 4/2/96 Kang et al 5 5 0 3 Greinke et al 423 265 2 8 1 12/10/96 5 5 8 1 5 9 8 0 8 8 12/16/97 Kang et al 205 555 6 FOREIGN PATENT DOCUMENTS TRANSLATION **COUNTRY** CLASS SUBCLASS DOCUMENT NUMBER YES DATE NO W 7 В 8/30/99 Romania C01 B31/04 X 1 1 4 8 8 \mathbf{X} **C01** B31/04 2 1 1 8 9 4 1 9/20/98 Russia C01 B31/04 X 1 3 3/27/95 Russia 1 8 4 8 \mathbf{X} 1 5 7 7 2 4 4 3/20/95 Russia C01 B31/04 X 5/11/94 **Europe** C01 B31/00 5 9 6 8 0 1 0 2 8/31/93 C01 B31/04 X 5 2 2 1 6 4 Japan C01 B31/04 X 1 4 9/30/92 Russia 1 7 6 5 1 C01 B31/04 X 5 7 4 7 6/23/91 1 6 4 Russia X 7/24/90 C01 B31/04 2 1 8 8 4 1 8 Japan **B3/12** X 0 9 6/23/89 **B28** 1 1 6 0 6 Japan C01 B31/04 \mathbf{X} 6 3 6 9 7 0 5 3/29/88 Japan DATE CONSIDERED **EXAMINER** 8130/03 \mathcal{O} n ℓ * EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 2 of 4 ATTY. DOCKET NO. SERIAL NO. Form PTO-1449 U.S. Department of Commerce N-7980/P-1022-1 Not Yet Assigned (Rev. 8-83) Patent and Trademark Office **APPLICANT** R. A. Greinke INFORMATION DISCLOSURE CITATION FILING DATE GROUP Not Yet Assigned (Use several sheets if necessary) OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Materials Research Bulletin 35, 2000, pp 425-430; "On Lower-Nitrogen Expandable Graphite", by Song, ¥ Kemin, Dun Huijuan. 1999 Joint International Meeting, Honolulu, Hawaii (10/17-22/99), Meeting Abstracts, Battery Div., "Study of the Lithium Intercalation Process in Mechanically Milled Graphite", Ong & Yang. International Symposium of Carbon, 1998 (Tokyo), "Intercalation and Exfoliation of Graphite at Room ¥ Temperature", Mittal & Inagaki. Tansó 1997, No. 180, pp 239-244, "Preparation of Alkali Metal-Graphite Intercalation Compounds in * Tetrahydrofuran Type of Solvents", Mizutani et al. Carbon Vol. 35, No. 8, pp. 1089-1096, 1997, "Electrochemical Synthesis and Characterization of Formic Acid-Graphite Intercalation Compound", Kang e t al. Inorganic Materials, Vol. 33, No. 6, 1997, pp 584-587, "Synthesis of Interclation Compounds in the System ¥ Graphite HNO3- H2SO4", Avdeev et al. Inorganic Materials, Vol. 33, No 6, 1997, pp 580-583, "Intercalation of Sulfuric Acid into Graphite in the * Presence of Gaseous Oxidizers and Oleum", Avdeev et al. Carbon Vol. 35, No. 4, pp 563-566, 1997, "A Novel Type of Reaction in the Chemistry of Graphite Intercalation Compounds. The Preparation of Alkali Metal Graphite Intercalation Compounds by Ion Exchange Reactions", Isaev et al. Carbon Vol. 35, No. 2, pp 285-290, 1997, "Formation of Iron Chloride-Graphite Intercalation Compounds in Propylene Carbonate by Electrolysis, Zhang et al. ⊁ Carbon Vol. 35, No. 1, pp 61-65, 1997, "Graphite Intercalation Compounds Prepared in Solutions of Alkali Metals in 2-Methyltetrahydrofuran and 2, 5-Dimethyltetrahydrofuran", Mizutani et al. Carbon Vol. 34, No. 12, Letter to the Editor, "Preparation of Lower-Sulfur Content and Expandable Graphite", Chen et al. no dotte Journal Electrochem Society, Vol. 143, No. 11, 1996, "Structure and Lithium Intercalation Properties of * Synthetic and Natural Graphite", Shi et al. The European Carbon Conference "Carbon 96" - Newcastle, UK July 1996, 'Direct Thermooxidative Conversion of Graphite to Exfoliated Graphite. The Way to Novel Technologies", Savoskin et al. Journal Phys. Chem Solids, Vol. 57, Nos. 6-8, pp 925-930, 1996, "Ternary Graphite Intercalation Compounds of Type $M(NH_3)_{x}C_{y}$. With M = Be, Mg, Al, Sc, Y, La. Electrochemical Synthesis, Stability and NMR Studies", Stumpp et al. Journal Phys. Chem Solids, Vol. 57, Nos. 6-8, pp 883-888, 1996, "Electrochemical Synthesis of Sulfate Graphite Intercalation Compounds with Different Electrolyte Concentrations", Kang et al. Journal Phys. Chem Solids, Vol. 57, Nos. 6-8, pp 783-786, 1996, "Debye-Waller Factors of ICI-Graphite Intercalation Compounds Prepared From Natural Graphite Flakes and Graphitized Polymide Films, Abe et al. Carbon '94, 3-8 July 1994, Granada, Spain, Extended Abstracts and Programme, The University of Granada, "Synthesis of FeCl₃-GIG-Using Electrochemical Method in an Aqueous Solution", Kang et al. Carbon, Vol. 31, No. 8, 1993, Printed in Great Britain, Letters to the Editor, "Room Temperature Exfoliation of Graphite Under Microgravity? X Sympozjum Przemyslu Elektrodowego, Extended Abstracts, "Preparation of Flexible Graphite From Czech Natural Graphite'" Tomanova et al. no oute Carbon, Vol. 31, No. 7, pp 1131-1137, 1993, "Intercalation of Perfluorobutanesulfonic Acid in Graphite", ¥ Ruisinger et al. Carbon, Vol. 31, No. 5, pp 777-781, 1993, "Intercalation of AlCl3, Into FeCl3-Graphite Intercalation Compounds and Occurrence of Bi-Intercalation", Inagaki et al.

* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

EXAMINER

end and ?

PTO1449.doc Xramanty

DATE CONSIDERED

Page 3 of 4 SERIAL NO. ATTY. DOCKET NO. N-7980/P-1022-1 Not Yet Assigned **APPLICANT** R. A. Greinke GROUP FILING DATE Not Yet Assigned OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) ⊀ \star ¥ X ⋆ X

Carbon, Vol. 31, No. 1, pp 201-204, 1993; "Laser-Assisted Exfoliation of Potassium-Ammonia-Graphite Intercalation Compounds", Kuga et-al. American Carbon Society, Twentieth Biennial Conference on Carbon, June 23-28, 1991, Extended Abstracts and Program, "Electrochemical Preparation of Metal-Ammonia Graphite Intercalation Compounds in Liquid Ammonia", Stumpp et al. American Carbon Society, Twentieth Biennial Conference on Carbon, June 23-28, 1991, Extended Abstracts and Program, "Preparation of New Graphite Intercalation Compounds in Anhydrous Hydrogen Fluoride", Carbon, Vol. 30, No. 2, pp 207-212, 1992, "Intercalation Process in the Ternary System of FeCl3-NiCl2-KCl", Ohira et al. Carbon, Vol. 29, No. 8, pp 1227-1231, 1991, "Exfoliated Graphite From Various Intercalation Compounds", Carbon, Vol. 29, Nos. 4/5, pp 595-597, 1991, "Upon the Intercalation of Rhenium Heptoxide and Rhenium Trioxide Nitrate into Graphite", Scharff et al. International Carbon Conference, Paris, 1990, "Study of Dissociation and Exfoliation of Graphite-Nitrate", Petitjean et al. Carbon, Vol. 28, No. 1, pp 119-123, 1990, "Electrochemical Preparation Of The Graphite Bi-Intercalation Compound With H₂SO₄ And FeCl₃", Shioyama et al. Synthetic Metals, 34, 1989, 145-150, "The Formation of Graphite Intercalation Compounds From Trichloroacetic Acid and Trichloroaetic Acid Chloride Solutions Containing Molybdenum Compounds", Schulz Synthetic Metals, 34, 1989, 139-144, "Potential Survey of Intercalation of Sulfuric Acid Into Graphite by Chemical Oxidation, Iwashita et al. Synthetic Metals, 34, 1989; 73-78, "Preparation of Metal Halide Graphite Intercalation Compounds by ¥ Intercalate Exchange, Stump et al. Synthetic Metals, 26, 1988, 41-47, "Electrochemical Synthesis of Graphite Intercalation Compounds with Nickel and Hydroxides, Inagaki et al. Synthetic Metals, 25, 1988; 181-187, "Formation of Metal Chloride-Graphite Intercalation Compounds in X Molten Salts", Wang et al. Synthetic Metals, 20, 1987; 9-13, "The Synthesis of NiCl2-FeCl3-Graphite Intercalation Compounds, Inagaki et Synthetic Metals, 20, 1987, 1-8, "Synthesis of Cupric Chloride-Graphite Intercalation Compounds by the ¥ Molten Salt Method, Inagaki et al. Journal of China University of Science and Technology, Vol. 28, No. 2, 1998, "Chemical Preparation and ¥ Characterization of Expansible Graphite by H202 Oxidation", Chen, Zuyao. Carbon, Vol. 24, No. 6, pp 731-735, 1986, "Etude de L'Exfoliation des Composes D'Insertion Graphite-Trioxyde de Soufre", Klatt et al. Carbon '86, Proceedings, June 30-July 4, 1986, "Studies on the Exfoliation Mechanism of Intercalated Graphite Flakes", Mathur et al. TANSO, No. 123, 1985, pp 160-165, "Preparation of Exfoliated Graphite from Alkaline Metal-Graphite-¥ Tetrahydrofurane-Ternary Compounds", Inagaki et al. Carbon, Vol. 23, No. 5, p 595, 1995, "Intercalation of Graphite with Antimony Tetrachloride Fluoride". \star TANSO, No. 121, 1985, pp 65-69, "Synthesis of Strontium-Graphite Intercalation Compounds", Akuzawa et al. **EXAMINER DATE CONSIDERED**

Form PTO-1449

(Rev. 8-83)

U.S. Department of Commerce

Patent and Trademark Office

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with

next communication to applicant.

* nomenth

Page 4 of 4 ATTY. DOCKET NO. SERIAL NO. **Form PTO-1449** U.S. Department of Commerce N-7980/P-1022-1 Not Yet Assigned (Rev. 8-83) Patent and Trademark Office **APPLICANT** R. A. Greinke INFORMATION DISCLOSURE CITATION FILING DATE GROUP (Use several sheets if necessary) Not Yet Assigned OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) American Carbon Society and Unversity of Kentucky, June 16-21, 1985, Extended Abstracts and Program, "Reaction of Chloroacids with Graphite", Stumpp et al. Viniti 2071-81, 8.pgs., "Production of Expanded Graphite", Komarova et al.— Journal of Applied Electrochemistry 13, 1983, pp 147-155, "The Electrochemical Formation of Graphite-Bisulphate Intercalation Compounds", Berlouis et al. Carbon, Vol. 21, No. 3, pp 181-188, 1983, "Intercalation by (SO₃F)₂ in Various Forms of Graphite and Boron Nitride", Hooley. American Carbon Society, July 18-22, 1983, Extended Abstracts and Program, "Structure and Intercalation of Natural Flake Graphite", Murdie et al. Journal of Materials Science 20, 1985, pp 171-181, "Intercalation of Natural Flake Graphites", Murdie et al. Yoshida, et al., "Exfoliated Graphite from Various Intercalation Compounds", Carbon (1991)*, Vol. 29, No. 8, pp. 1227-1231. Zhang, et al., "Formation of Iron Chloride-Graphite Intercalation Compounds in Propylene Carbonate by Electrolysis", Carbon (1997)*, Vol. 35, No. 2, pp. 285-290. Kang, et al., "Electrochemical Synthesis and Characterization of Formic Acid-Graphite Intercalation Compound", Carbon (1997)*, Vol. 35, No. 8, pp. 1089-1096. *no month available. DATE CONSIDERED **EXAMINER** encusans. * EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

·							<u> </u>			<u> </u>	· ·		1 f1	<u> </u>
Form PTO-1449 U.S. Department of Commercial									اه-	ATTY. DOCKET NO.		ERIAL N		1,
(Rev. 8-83) Paten and Trademark Office									Office 8	P-1022-1		10/004,716		
MAR 1 & 2002									- 78	APPLICANT Ronald Greinke				
(Use several sheets if necessary) U.S. PATE											· T	CDOUD		
(Use several sheets if newscarv)										FILING DATE December 4, 2001		GROUP 1741	1753	
II C DATER										NT DOCUMENTS		1/71		
EXAMINER									U.S. I ATE	TI DOCUMENTS			FILING	G DATE IF
INITIAL		DOCUMENT NUMBER DATE							DATE	NAME	CLASS	SUBCLAS		OPRIATE
												<i>X</i>		
											$\perp \! / \! \perp$			
											X			
				<u> </u>	ļ	<u> </u>	<u> </u>	<u> </u>		l co				
				l				1		02/07		'		
						\vdash	_	_		A A A	<u>م</u> ہ	 		
										X "V	A PAG			
				├	 	╁	+	├	1	ORIGINALLY	1 80			
					\vdash		\vdash			 / 	_}	<u> </u>	-	
						1				<i>/</i>	[
				t		t	1					†		
					Ì									
						T	1	†						
								FC	REIGN PA	TENT DOCUMENTS				
														LATION
	DOCUMENT NUMBER						·	T	DATE	COUNTRY	CLASS	SUBCLAS		NO
$\mathcal{C}_{\mathcal{O}}$		1	1	8	6	7	2	7	4/2/70	Great Britain	_		X	,
(2)		8	2	3	3	9	8		2/11/98	Europe	-		X	
								ļ						
							-	-						
				OT	HE	R DC	CU	ME	NTS (Includir	g Author, Title, Date, Per	tinent Pages	, Etc/30		
Cal			Dei	rwen	t Ab	strac	t 199	1-32	2793 & SU 16	09744 A IVANOVSK	Ur ~1~	1/2 AP		20
2		OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Derwent Abstract 1991-322793 & SU 1609744 A IVANOVSK On Mary 1												
,										/		Ä	1000	· 🗸
			ļ											
										/				
EXAMINER SUMO WOOD DATE CONSIDERED 8/31											C12N	IR		
										or not citati n is in con I not considered. Includ				
next co								JU111		vollotael eat Illelut	opj or		+	
PTO1449.doc										· · · · · · · · · · · · · · · · · · ·		· · · ·		